



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/522,834	03/10/2000	Thomas F Callahan	01720/UREA-9701-C	4824
27656	7590	01/25/2005	EXAMINER	
MICHAEL J. WEINS 31 BANK STREET LEBANON, NH 03766			LEE, PING	
			ART UNIT	PAPER NUMBER
			2644	

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/522,834

Applicant(s)

CALLAHAN, THOMAS F

Examiner

Ping Lee

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/15/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-7,10-13 and 15-18 is/are rejected.
- 7) ☒ Claim(s) 3,4,8,9 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 17, line 13, the term "said cushion interface parts" lack clear antecedent basis.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 16 is rejected under 35 U.S.C. 102(b) as being anticipated by Scott (US 4,878,560).

Regarding claim 16, Scott shows the noise barrier device (Fig. 3) to be held against the side of the user's head at the ear, the audio chamber defining part (shown in Fig. 2), a cushion interface part (5,7,9, 15) comprising a peripherally extending cushion (15) to encircle the ear canal entrance. Scott shows the material being at least partially plastically deformable (col. 2, lines 43-44).

Art Unit: 2644

5. Claim 16 is rejected under 35 U.S.C. 102(b) as being anticipated by Huntress (US 4,055,233).

Regarding claim 16, Huntress shows the noise barrier device (Fig. 3) to be held against the side of the user's head at the ear, the audio chamber defining part (shown in Fig. 1), a cushion interface part (2), a peripherally extending cushion (4,5). Scott shows the material being at least partially plastically deformable (col. 2, lines 43-44).

6. Claims 7, 10, 11, 16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Fitzgerald (US 5,113,428).

Regarding claim 7, 10, 11, 16 and 18, Curry shows the ear cups (12, 14) to be held against the sides of the user's head at the ears, the headband (16), the audio chamber defining part including cushion interface parts (co. 3, lines 14-15; "plastic material") having cushions to encircle the ear canal entrances of the ears. The claimed "at least partially plastically deformable" reads on the characteristic of the plastic material disclosed in Fitzgerald.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 2, 5, 6, 12, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fitzgerald.

Fitzgerald's noise barrier apparatus is discussed above. Regarding claims 1, 2, 5, 6, 12, 13 and 15, Fitzgerald fails to show damping ratio for the cushion. Fitzgerald teaches that plastic material not only will provide secure contact between the user's head and the ear cup, it will also attenuate noise. Fitzgerald suggests the general plastic material without specify the particular to be used. However, one skilled in the art would test any plastic materials, including those with damping ratio greater than 0.75, in order to find one that is best suit for the requirement as set forth by Fitzgerald. Thus, it would have been obvious to one of ordinary skill in the art to modify Fitzgerald's device by testing different plastic materials for the cushion, including those with damping ratio greater than 0.75, in order to attenuate noise and provide secure fit.

Response to Arguments

9. Applicant's arguments filed 9/15/03 have been fully considered but they are not persuasive.

On p. 14, Applicant argued that the device disclosed in Scott is not a noise barrier device because of the vent passage 21 will allow the transmission of sound.

It is noticed that Scott's device is used to support radio, telephone headset, hearing aids and stethoscopes (col. 1, lines 5-7). The vent passage 21 in Scott is to improve sonic comfort and equalizes the air pressures on either side of the device. Therefore, this passage is not intended to pass the external sound inside the ear canal. Furthermore, the diameter of the vent is considerably narrow. One skilled in the art would have expected that a large amount of noise would inherently be blocked by this

narrow passage. Scott discloses that other plastic material could be used for the cushion (col. 2, lines 43-44). The claimed peripherally extending cushion reads on 15 of Scott. Therefore, Scott discloses the claimed noise barrier device.

On p. 16, Applicant argued that Huntress fails to show the cushion material being at least partially plastically deformable.

It is noticed that the example provided by Huntress is silicon rubber. When the force applies to such material, the silicon rubber rarely return fully and perfectly to its original shape. Therefore, the claimed limitation reads on the characteristic of the silicon rubber.

On p. 18, Applicant argued that Curry fails to show the cushion material being at least partially plastically deformable.

It is noticed that the example provided by Curry is flexible plastic or foam rubber. When the force applies to such material, the flexible plastic or foam rubber rarely return fully and perfectly to its original shape. Therefore, the claimed limitation reads on the characteristic of the flexible plastic or foam rubber.

Allowable Subject Matter

10. Claims 3, 4, 8, 9 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2644

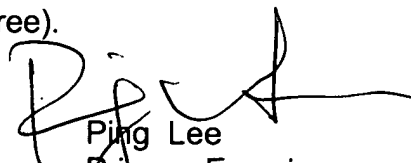
11. Claim 17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 703-305-4865.

The examiner can normally be reached on Monday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ping Lee
Primary Examiner
Art Unit 2644

pwl